

REVISED CLAIMS

(For US)

1. A gallium nitride semiconductor light emitting
5 device, comprising a semiconductor substrate, an active
layer having a quantum well structure and made of nitride
semiconductor containing at least indium and gallium, and a
first cladding layer and a second cladding layer for
sandwiching the active layer therebetween, wherein

10 the active layer consists of two quantum well
layers and one barrier layer interposed between the quantum
well layers.

2. The gallium nitride semiconductor light emitting
15 device according to Claim 1, wherein the active layer is
configured so as to allow electrons and holes to be
uniformly distributed in each of the quantum well layers.

3. The gallium nitride semiconductor light emitting
20 device according to Claim 1, wherein the gallium nitride
semiconductor light emitting device is a semiconductor laser
device and the active layer forms an oscillating section of
the semiconductor laser device.

4. The gallium nitride semiconductor light emitting device according to Claim 3, wherein the semiconductor laser device is a self-oscillating semiconductor laser device.

5 5. The gallium nitride semiconductor light emitting device according to Claim 1, wherein the barrier layer has a layer thickness of 10 nm or less.

6. A gallium nitride semiconductor light emitting device, comprising a semiconductor substrate, an active layer having a quantum well structure and made of nitride semiconductor containing at least indium and gallium, and a first cladding layer and a second cladding layer for sandwiching the active layer therebetween, wherein

10 15 the active layer comprises two to four quantum well layers and one to three barrier layers each interposed between the quantum well layers, and the one or each barrier layer has a layer thickness of 4 nm or less.

20 7. The gallium nitride semiconductor light emitting device according to Claim 6, wherein the active layer is configured so as to allow electrons and holes to be uniformly distributed in each of the quantum well layers.

8. The gallium nitride semiconductor light emitting device according to Claim 6, wherein the gallium nitride semiconductor light emitting device is a semiconductor laser device and the active layer forms an oscillating section of the semiconductor laser device.

9. The gallium nitride semiconductor light emitting device according to Claim 8, wherein the semiconductor laser device is a self-oscillating semiconductor laser device.

10. The gallium nitride semiconductor light emitting device according to Claim 1, wherein each quantum well layer has a layer thickness of 10 nm or less.

11. The gallium nitride semiconductor light emitting device according to Claim 6, wherein each quantum well layer has a layer thickness of 10 nm or less.

12. A semiconductor laser light source device, comprising the semiconductor laser device as defined in Claim 3, and a driving circuit for injecting an electric current into the semiconductor laser device.

13. The semiconductor laser light source device according to Claim 12, wherein the electric current is a

modulated current and a modulation frequency of the current is 300 MHz or more.

14. A semiconductor laser light source device,
5 comprising the semiconductor laser device as defined in Claim 8, and a driving circuit for injecting an electric current into the semiconductor laser device.

15. The semiconductor laser light source device
10 according to Claim 14, wherein the electric current is a modulated current and a modulation frequency of the current is 300 MHz or more.